

REMARKS

By the above actions, claim 9 has been amended. In view of these amendments and the following remarks, further consideration of this application is requested.

With regard to the objection to claim 9, all of the changes required by the Examiner have been implemented above, so that withdrawal of the objection to claim 9 is requested.

Claims 9, 10, 13, & 18-21 have been rejected under 35 USC § 103 as being unpatentable over the combined teachings of Vatet, Miele et al. (hereafter, "Miele") and Riegler.

In accordance with claim 1, a stationary air layer is provided between the exterior wall and the interior wall, which a stationary air layer is provided as an insulating layer which replaces the insulating materials used so far (see, page 11, lines 2-4).

Nowhere does Vatet express anything with respect to insulation issues. Also, no mention is made to whether the air layer between the exterior and the interior wall is stationary. In fact, in the drawings (which admittedly only show the lower region of the wall), the gap between the walls is open to the top and similarly may be open to the sides of the wall. As a result, it cannot be derived from Vatet that a stationary air layer is or should be provided, and without which the air layer cannot serve for insulation purposes and such purposes are not sought by Vatet.

In this regard, the Examiner acknowledged that neither Vatet nor Miele disclose a stationary air layer and attempts to ameliorate that fact by making reference to the crossties 8 which the Examiner states "can be assumed to add some limitation to the movement of air therethrough; however, such crossties limit the movement of air in the wall space to the same extent that a sieve limits the movement of water therethrough. Providing some nominal restriction on the movement of air is simply not the same as creating a stationary air space.

Moreover, considering that Vatet is not directed to insulation but instead the construction of Vatet is directed to leading any moisture that has accumulated between the walls due to the breathing of the wall to the exterior of the wall, the crossties certainly do not extend over the entire width of the wall, because then they would prevent the collected moisture from flowing downwards to the bottom of the gap as depicted in Fig. 4. However, the crossties only could contribute to the formation of a stationary air layer if the crossties

were made of sheet material that extends over the full width of the wall, yet it can be assumed that the crossties in Vatet are elongate members (as one usually would understand the term "cross-tie"), such as rods or bars, which as shown in the drawings are provided with a depression 8' so as to prevent moisture from traveling along the bar from one wall to the other.

In evident recognition of the foregoing, Riegler has been cited by the Examiner for its disclosure of a dead air space 3. However, Riegler is specifically concerned with insulation materials and particularly with insulation materials having fire retarding characteristics. While in Figs. 2 & 3, wall constructions are shown in which there is a stationary air layer 3, such air layer is only shown in combination with a layer of insulation material 4 which is provided between a brick wall 2 and an outside plaster layer 5. Certainly the Riegler patent which is directed to insulation material does not recommend to omit such insulation material and to only provide an air layer.

The Examiner also recognizes that Vatet does not disclose a metal reflective layer disposed directly on the interior-facing side of the exterior wall, but asserts that Miele provides such a teaching. However, Miele shows a three-layer wall construction comprising a brick wall 16 and hollow building blocks 10 between which there is provided a layer of insulation material 12. The insulation layer also can be material that is laminated onto building blocks 10 or comprises insulation mats, for example, fiberglass batting. Furthermore, Miele discloses at col. 3, lines 34-44 that:

"When it is desired to provide not only an insulation barrier, but also a vapor barrier, the insulation layer is supplemented by a vapor layer. Typically, this may be in the form of an aluminum sheet interposed between the insulation material and the proximate concrete block surface. This is suggested, for example, by the heavy line 17 in FIG. 4. One particular construction might include, for example, an insulation layer formed of Fiberglas material sandwiched between a kraft paper and aluminum sheet; with the aluminum sheet bonded to the surface of the concrete block."

Hence, Miele clearly suggests the provision of a vapor barrier exclusively in combination with a layer of insulation material, such as Fiberglas material. Thus, Miele is an example of the typical prior art approach wherein an insulation material is used in combination with a vapor barrier which protects the insulation layer against ingress of

humidity. No reason exists for one of ordinary skill in the art to apply the construction of Miele without including the insulation material, and even if such would be done, certainly the vapor barrier would also be omitted, since then there would no longer be any insulation material to be protected against ingress of humidity by such a barrier.

Further, it is noted that since, in Miele, the aluminum sheet is employed as vapor barrier, the aluminum sheet is used because of its water-repellant properties. Thus, there would be no reason to take standard matte finish aluminum sheeting and polish it so as to be reflective. The Examiner is simply wrong in asserting that, because both the invention and Miele's construction is aluminum, Miele's aluminum must be reflective if applicant's aluminum is reflective.

In view of the above it cannot be agreed with the examiner that one of ordinary skill in the art starting from the construction of Vatet and in consideration of Miele and Riegler, would have modified the construction of Vatet in the manner contended to be obvious by the Examiner without the benefit of the disclosure of the present application or the exercise of inventive activity on such a person's part.

As regards the criticality for the positioning of the reflective layer on the exterior wall (rather than on the interior wall), the Examiner's attention is directed to the last full paragraph of page 13 of the present application in where it is noted that "the reflection layer 8 does not impede the emission, because it is positioned closely to the back side of the brick of the front wall and thus a reflection into the front brickwork 2 is impossible." Clearly, a reflection layer on the front facing surface of the rear brickwork would have the effect of reflection to the front brickwork that is expressly sought to be avoided in accordance with the teachings of the present invention. Thus, the Examiner's statement "1." on page 4 of his Action is totally erroneous and factually incorrect as to the contention that "a reflective layer on either wall is capable of reflecting heat towards the interior of a building." If the reflective side of a layer on the inner wall faces outward, it will not reflect heat inward and no matter which way it faces, it will not act to cause heat energy "to be completely maintained within the cross-section of the wall construction" (page 12, lines 8 & 9) as is the case for the present invention.

Thus, it is submitted that the rejection based on the combined teachings of Vatet, Miele and Riegler is inappropriate and should be withdrawn for all of the reasons indicated above, and such action is hereby requested.

Claims 9, 10, 12, 13, & 18-21 have been rejected under 35 USC § 103 as being unpatentable over the combined teachings of Vatet, Kotrotsios, and Riegler. However, this rejection is no more appropriate than the rejection based upon Vatet, Miele, and Riegler for the following reasons in addition to those noted with respect to Vatet and Riegler above which apply here as well.

Kotrotsios suggests wall constructions in which, similar to the present application, the provision of conventional insulation material, such as fiberglass material, is avoided. While Kotrotsios to this end suggests the provision of a reflective layer, the concept in Kotrotsios nevertheless appears to be different from that of the present application.

When used for the insulation of exterior masonry walls, Kotrotsios suggests to provide a combination having a first layer of a specific insulation material and a second layer of a specific different insulation material. Thus, in Figs. 7 & 8 of Kotrotsios, embodiments are shown, wherein a layer of type A insulation material is provided at the interior side of the wall, and a layer of type B insulation material is provided at the exterior side of the wall. In the Fig. 9 embodiment a concrete roof is shown, wherein a layer of type A insulation material is provided at the interior side of the roof, and a layer of type C insulation material is provided at the exterior side of the roof.

In the Figs. 12 and 13 embodiments of Kotrotsios (Fig. 13 being cited in particular by the Examiner), the specific insulation layers are provided within the wall construction, wherein a layer of type A insulation material is provided towards the interior side of the wall, and a layer of type B insulation material is provided towards the exterior side of the wall. Please note that the wall construction of Figs. 12 and 13 of Kotrotsios is not a double wall construction as that of the present application. That is, the "layer of plaster board" 2e in Fig. 12 and similarly plaster board layer 2f of Fig. 13 correspond to the "interior masonry wall" recited in claim 1. Kotrotsios expressly states that a layer of common plastering with sand is provided at the "external side -8e-" of the wall in the Fig. 12 embodiment and the

type B insulation used there being disclosed as being “used to cover the external surfaces of sublayers of the external masonry of buildings.”

Furthermore, whereas the thermal insulation in the present application is provided by a combination of a (one-sided) reflective layer and a stationary air layer as recited in claim 1, according to Kotrotsios, thermal insulation is provided by a combination of two reflective layers that are made of different insulation materials. Furthermore, while in the present invention the insulation-free dead air space is between a metal reflective layer on the outer wall and a nonreflective masonry wall, in Kotrotsios the air layer that is trapped within the reflective insulation serves for sound insulation, as it is explained at col. 7, lines 27-32, not for thermal insulation as in the present case.

Thus, the combination of Vatet, Kotrotsios and Riegler does not suggest the claimed invention but rather it appears that the examiner is merely picking pieces of the individual references out of context in a manner that could only be done with the hindsight benefit of the present disclosure and does not represent anything that would be arrived at by one of ordinary skill in the art not having the benefit of applicant’s disclosure.

Therefore, for the reasons set forth above, the rejection based upon the Vatet, Kotrotsios and Riegler references should also be withdrawn and such action is now requested.

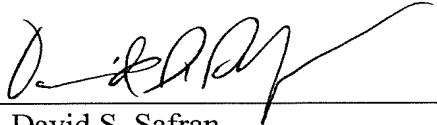
While not binding on the Examiner, it is relevant to note that the corresponding European patent application has matured into European patent EP 1 525 357 a copy of which is submitted herewith and from it can be seen that the approved claim is very comparable to that presented here:

1. Wall construction for an exterior brick wall of a building, comprising a rear brickwork and a front brickwork, wherein the front brickwork (2) is made at least in part of constructional elements (11), such as bricks, building blocks and the like, which only at their side facing the rear brickwork (5) are provided with a layer (8) which is reflective for heat radiation, **characterized in that** no insulating layers are provided between the front brickwork and the rear brickwork, but a substantially stationary air layer is provided between the front brickwork and the rear brickwork.

Therefore, in the absence of new and more relevant prior art being discovered, this application should now be in condition for allowance and action to that effect is requested. However, while it is believed that this application should now be in condition for allowance, in the event that any issues should remain, or any new issues arise, after consideration of this response which could be addressed through discussions with the undersigned, then the

Examiner is requested to contact the undersigned by telephone for the purpose of resolving any such issue and thereby facilitating prompt approval of this application.

Respectfully submitted,

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